

In the claims:

1. (Currently amended) A print head comprising: an orifice plate comprising at least two orifices; wherein at least one orifice prints a first reactive ink; wherein at least one other orifice prints a fixer or a second reactive ink; wherein physical proximity of the at least one orifice and the at least one other orifice on the printhead is not limited and mixing of reactants from the at least one orifice and the at least one other orifice is not otherwise prevented or minimized by the printhead; wherein the first reactive ink and the fixer or the second reactive ink react to form a solid precipitate; [[and]] wherein the solid precipitate is redispersible or redissolvable in at least one of the first reactive ink, or the fixer or the second reactive ink; and wherein, when the solid precipitate forms on the printhead, the solid precipitate is able to redisperse or redissolve, thus avoiding clogging of the printhead.

2. (Original) The print head of claim 1 wherein the orifice plate comprises at least two arrays of orifices and wherein one array prints the reactive ink and wherein another array prints the fixer or the second reactive ink.

3. (Original) The print head of claim 1 wherein the at least one other orifice prints a fixer and the fixer comprises a positively charged species.

4. (Original) The print head of claim 1 wherein the positively charged species is a polymer.

5. (Original) The print head of claim 4 wherein the fixer is selected from the group consisting of poly(ethyleneimine), polyguanidines, poly(diallyldimethylammonium chloride), poly(dimethylamine-co-ethylenediamine), imidized poly(styrene-co-maleic anhydride), polyguanides, and salts thereof.

6. (Original) The print head of claim 5 wherein the fixer comprises polyethyleneimine and poly(biguanidine) or salts thereof.

7. (Original) The print head of claim 1 wherein the printing is controlled by an electronic device.

8. (Original) The print head of claim 1 wherein the reactive ink comprises at least two dyes.

9. (Currently amended) An orifice plate for a print head, the orifice plate comprising: at least two orifices; wherein at least one orifice prints a ink; wherein the second orifice prints at least one of a fixing agent or a second ink; wherein physical proximity of the at least one orifice and the at least one other orifice on the printhead is not limited and mixing of reactants from the at least one orifice and the at least one other orifice is not otherwise prevented or minimized by the printhead; wherein the ink and the at least one of the fixing agent or the second ink react to form a precipitate; [[and]] wherein the precipitate is redispersible in at least one of the first ink or the at least one of the fixing agent or the second ink; and wherein, when the precipitate forms on the printhead, the precipitate is able to redisperse or redissolve, thus avoiding clogging of the printhead.

10. (Original) The orifice plate of claim 9 comprising at least two arrays of orifices and wherein one array prints the first ink and wherein another array prints the at least one of the fixing agent or the second ink.

11. (Original) The orifice plate of claim 9 wherein the second orifice prints the fixing agent and the fixing agent comprises a positively charged species.

12. (Currently amended) The orifice plate of claim 11 wherein the positively charged charged species comprises a polymer.

13. (Original) The orifice plate of claim 11 wherein the positively charged species comprises poly(ethyleneimine), polyguanidines, poly(diallyldimethylammonium chloride), poly(dimethylamine-co-ethylenediamine), imidized poly(styrene-co-maleic anhydride), polyguanides, and salts thereof.

14. (Original) The orifice plate of claim 13 wherein the fixing agent comprises polyethyleneimine and poly(biguanidine) or salts thereof.

15. (Original) The orifice plate of claim 9 wherein the printing is controlled by an electronic device.

16. (Original) The orifice plate of claim 9 wherein the reactive ink comprises at least two dyes.

17. (Currently amended) A method for marking a medium, the method comprising: printing with a printhead at least one of a fixer or first reactive ink onto the medium; and printing with the printhead a second reactive ink onto the medium; wherein the at least one of the fixer or first reactive ink and the second reactive ink react to deposit a precipitate onto the medium; wherein the precipitate is redispersible or redissolvable in the at least one of the fixer or first reactive ink or the second reactive ink; and wherein the second reactive ink and the at least one of the fixer or the first reactive ink are printed from the same orifice plate; wherein physical proximity of the at least one orifice and the at least one other orifice on the printhead is not limited and mixing of reactants from the at least one orifice and the at least one other orifice is not otherwise prevented or minimized by the printhead; and wherein,

when the solid precipitate forms on the printhead, the solid precipitate is able to redisperse or redissolve, thus avoiding clogging of the printhead.

18. (Original) The method of claim 17 wherein the orifice plate comprises at least two arrays of orifices and wherein one array prints the second reactive ink and wherein another array prints the fixer or the first reactive ink.

19. (Original) The method of claim 17 wherein the fixer comprises a positively charged species.

20. (Original) The method of claim 19 wherein the fixer comprises a polymer.

21. (Original) The method of claim 19 wherein the fixer comprises poly(ethyleneimine), polyguanidines, poly(diallyldimethylammonium chloride), poly(dimethylamine-co-ethylenediamine), imidized poly(styrene-co-maleic anhydride), polyguanides, and salts thereof.

22. (Original) The method of claim 21 wherein the fixer comprises polyethyleneimine and poly(biguanidine) or salts thereof.

23. (Original) The method of claim 17 wherein the printing is controlled by an electronic device.

24. (Original) The method of claim 17 wherein the reactive ink comprises at least two dyes.

25. (Currently amended) A means for marking a substrate, the means comprising: a means for depositing a reactive ink which includes a colorant onto the substrate; and a means for depositing a fixer which includes a fixing agent onto the

substrate; wherein the colorant and the fixing agent are deposited through the same orifice plate; wherein physical proximity of the at least one orifice and the at least one other orifice is not limited and mixing of reactants from the at least one orifice and the at least one other orifice is not otherwise prevented or minimized by the means for marking a substrate; wherein the colorant and the fixing agent react to mark the substrate with a precipitate; and wherein the precipitate is redispersible or redissolvable in at least one of the reactive ink which includes the colorant or the fixer which includes the fixing agent; and wherein, when the solid precipitate forms on the means for marking a substrate, the solid precipitate is able to redisperse or redissolve, thus avoiding clogging of the means for marking a substrate.

26. (Original) The means of claim 25 wherein the orifice plate comprises at least two arrays of orifices and wherein one array prints the colorant and wherein another array prints the fixing agent.

27. (Original) The means of claim 25 wherein the fixing agent is a positively charged species.

28. (Original) The means of claim 27 wherein the fixing agent comprises a polymer.

29. (Original) The means of claim 27 wherein the fixing agent comprises poly(ethyleneimine), polyguanidines, poly(diallyldimethylammonium chloride), poly(dimethylamine-co-ethylenediamine), imidized poly(styrene-co-maleic anhydride), polyguanides, and salts thereof.

30. (Original) The means of claim 29 wherein the fixing agent comprises polyethyleneimine and poly(biguanidine) or salts thereof.

31. (Original) The means of claim 25 wherein the means for marking is controlled by an electronic device.

32. (Original) The means of claim 25 wherein the reactive ink comprises at least two dyes.

33. (Currently amended) A print head comprising: an orifice plate comprising at least two orifices; wherein at least one orifice prints a first reactive ink; wherein at least one other orifice prints a fixer or a second reactive ink; wherein physical proximity of the at least one orifice and the at least one other orifice on the printhead is not limited and mixing of reactants from the at least one orifice and the at least one other orifice is not otherwise prevented or minimized by the printhead; wherein the first reactive ink and the fixer or the second reactive ink react to form a solid precipitate; and wherein, when the solid precipitate forms in one of the at least one orifice or the least one other orifice, the solid precipitate is redispersible or redissolvable in the at least one orifice or the at least one other orifice in at least one of the first reactive ink, or the fixer or the second reactive ink; and wherein, when the solid precipitate forms on the printhead, the solid precipitate is able to redisperse or redissolve, thus avoiding clogging of the printhead.